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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/899,583	07/06/2001	Charles William Norman	1226a	5290

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EXAMINER
NGUYEN, STEVEN H D

ART UNIT	PAPER NUMBER
2665	

DATE MAILED: 04/09/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	Applicant(s)
09/899,583	Norman
Examiner	**Art Unit**
Steven Nguyen	2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *Jan 29, 2002*

2a) ☒ This action is **FINAL.** 2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-34* is/are pending in the applica

4a) Of the above, claim(s) _____ is/are withdrawn from considera

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-34* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirem

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) ☐ All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) ☒ Notice of References Cited (PTO-892)

16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 5

18) ☐ Interview Summary (PTO-413) Paper No(s). _____

19) ☐ Notice of Informal Patent Application (PTO-152)

20) ☐ Other:

DETAILED ACTION

Specification

1. Page 1, the applicant should insert ", now abandon" into lines 13, after "1998" and lines 14, after "1996".

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Furuta et al (USP 5600648) in view of Jahromi et al (USP 5416768).

Regarding claims 1, 11, 22-23 and 29-30, Furuka discloses a first adapter assembly adapted (Fig 19, this adapter receives the secondary communication signal and inserting the primary overhead section into a secondary transport overhead section and secondary payload into a primary transport payload as show at figure 12 and 13 to transport the signal across the primary ring) to receive the secondary communication signal from the secondary ring and the primary communication signal from the primary ring, to combine the secondary overhead into the unused space of the primary overhead "Fig 12, (a) such as SOH, POH of STM-1 is inserted into the primary overhead", to form a transport overhead from the secondary overhead and primary

overhead wherein the transport overhead includes the secondary overhead, to combine the secondary payload with the primary payload to form a transport payload "Fig 12, VC-4"and to combine the transport overhead with the transport payload to form the transport communication signal for transport across a communications path of the primary ring "See Fig 12 (a)"; and a second adapter assembly adapted (Fig 12, this adapter removes secondary overhead section from a secondary transport overhead section and secondary payload from a primary transport payload as show at figure 12 and 13 and combining the section overhead with a payload to form a communication signal for transporting the signal across the secondary ring) to receive the transport communication signal from the primary ring, to remove the secondary overhead from the transport overhead "Fig 12, (a) and (b) removing SOH of STM-1 from SOH of STM-4 "transport overhead"", to remove the secondary payload "Fig 12, (a) (b) removing a VC4 of STM-1 from transport payload STM-4, VC4" from the transport payload, and to combine the secondary overhead with the secondary payload to create the secondary communication signal for transport to the secondary ring "Fig 12 (b), combining a SOH, POH and Payload, VC-4 to form an STM signal for transmitting in the local loop area" and combining the secondary section overhead with an unused space of primary overhead to form a transport overhead (See col 5, lines 10-34, a ref 12 is a mapping means, which receives a STM-1 signal such as SOH includes RSOH and MSOH, for inserting the overhead section of STM-4 signal and payload of STM-1 is inserted into a payload of STM-4 signal). However, Furuka fails to disclose the primary and secondary rings that interconnect by a cross connect apparatus and combining the secondary

overhead with an unused space of primary overhead to form a transport overhead. In the same field of endeavor, Jahromi discloses (See Fig 13-14, Col 2, line 10 to col 14, line 31) a communication system for transporting a secondary communication signal from a secondary synchronous optical network ring "Fig 13, STM-1 AD" on a primary synchronous optical network ring "Fig 13, STM-4 AD" which has a primary communication signal, wherein the secondary communication signal has secondary overhead and the primary communication signal has primary overhead by inserting the secondary section overhead into an unused space of the primary section overhead to form a transport overhead "STM-1 is inserted into STM-4 etc. by using add/drop unit, See col 5, lines 32 to col 6, lines 29 and Fig 14"; a first and second adapter assembly (See Fig 14 which includes a primary ring "STM-4 ring network" and secondary ring "Local loop area STM-1" which includes two adapters for disassembly/reassembly the primary and secondary signals wherein the STM-1 is inserted into an unused space of STM-4).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to apply the teaching of Jahromi's communication system such as inserting the section overhead and transport payload to form a section overhead and transport payload a new communication signal into Furuta's communication system. The suggestion/motivation would have been to decrease the cost of the communication system and have a path continuity from a node on one ring to a node on another ring to be maintained, thereby facilitating reliable end to end path monitor. Even without Jahromi, one of ordinary skill in the art would have been to recognize that an STM-1 and STM-4 signal can be transport by SONET/SDH rings wherein

the STM-1 signal inserts into STM-4 signal and the STM-4 signal is extracted and assembly into STM-1 signal.

Regarding claim 2, Furuta et al disclose the second adapter assembly is further adapted to remove the primary overhead from the transport overhead and the primary payload from the transport payload, to combine the primary overhead with the primary payload to form a primary communication signal for transport in the primary ring (Fig 18 and 19, ref 30a, 11 and 20. The second adapter removes primary overhead and payload and reassembly them to continue transmission across the network).

Regarding claims 3-6, Furuta discloses (See Fig 19, Col 2, lines 32 to col 14, lines 14) a first multiplexer (Ref 30d) adapted to separate the primary overhead from the primary payload; a second multiplexer (Ref 30a) adapted to separate the secondary overhead from the secondary payload; a converter (Ref 30b) adapted to receive the secondary overhead from the second multiplexer and the primary overhead from the first multiplexer and to load the secondary overhead into available overhead space of the primary overhead, thereby creating the transport overhead; a cross connect (Ref 20) adapted to receive the secondary payload from the second multiplexer and the primary payload from the first multiplexer and to combine the secondary payload with the primary payload to form a transport payload; and a third multiplexer (Ref 30b) adapted to receive the transport overhead from the converter and the transport payload from the cross connect and to combine the transport overhead with the transport payload to form the transport communication signal and a processor for connecting the multiplexers, the converter,

the cross connect and performing the function of disassembling or assembling the signals between STM-1 and STM-4 "it is implicitly disclosed".

Regarding claims 12 and 24, Claims 12 and 24 are similar to claim 2. Therefore, claims 12 and 24 are rejected under similar rationale.

Regarding claims 13-14, Claims 13-14 are similar to claims 3-6. Therefore, claims 13-14 rejected under similar rationale.

Regarding claims 15-16, Furuta discloses an interface adapted to receive the transport communication signal from the primary ring and to transmit the transport communication signal to the first multiplexer and an interface adapted to receive the primary communication signal from the second multiplexer and to transmit the primary communication signal to the primary ring (Fig 19).

Regarding claim 17, Furuta discloses an interface adapted to receive the secondary communication signal from the third multiplexer and to transmit a secondary communication signal to the secondary ring (Fig 19, receiving the communication signal from the DCS; the communication signal is multiplexed into the secondary signal and transmitting it onto the secondary ring; STM-1).

Regarding claims 7-9, 18-20, 25-27 and 31-33, It is explicitly for the secondary overhead including LOH, RSOH, MSOH etc... in the SONET formatted.

Regarding claims 10, 21, 28 and 34, Furuka fails to disclose a first and secondary ring. However, it would have been obvious to one of ordinary in the art to recognize that Jahromi

discloses the primary ring is operated by a first carrier and the secondary ring is operated by a second carrier (See Fig 13-14).

Response to Arguments

4. Applicant's arguments filed 2/2/2002 have been fully considered but they are not persuasive.

In response to pages 8-9, the applicant states that Furata and Jaromi do not reserve the secondary overhead in the primary overhead. In reply, Furata discloses in the Figure 12, wherein the section and transport overhead of a STM-1 signal are inserted into STM-4 signal for transmitting onto the primary ring and extracted from the STM-4 signal to form STM-1 for transmitting onto the secondary ring. Jaromi discloses an add/drop multiplexing for extracting the section and transport overhead from STM-4 signal of the first network "primary ring" to form a STM-1 signal for transmitting onto the second network "secondary ring"; see col. 2, lines 46-63.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., reserve the secondary overhead in the primary overhead when a section of second ring is disabled and the traffic of the secondary ring is routed over primary ring) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification

are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sugawara (USP 6169754) disclose a method of separating a section and transport overhead of a signal STM-4 on the primary ring to form a STM-1 signal on the secondary ring or inserting a section and transport overhead of a signal STM-1 on the secondary ring to form a STM-4 signal on the primary ring. The claims of this application and Sugawara (USP 6169754) claim the same invention. Therefore, this applicant has an interference potential with Sugawara (USP 6169754).

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven Nguyen whose telephone number is (703) 308-8848. The examiner can normally be reached on Monday through Friday from 8:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu, can be reached on (703) 308-6602.

The fax phone number for this group is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4700.

STEVEN H. D. NGUYEN
Art Unit: 2665
April 1, 2002

HUY D. VU
PRIMARY EXAMINER